

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

DOCKETED
DEC 31 1980

BALLY MANUFACTURING CORPORATION,

Plaintiff,

vs.

D. GOTTLIEB & CO., WILLIAMS
ELECTRONICS, INC.,
ROCKWELL INTERNATIONAL CORPORATION,
and GAME PLAN, INCORPORATED,

Defendants.

U.S. DISTRICT COURT
Civil Action
No. 80-C-5048

PL 27

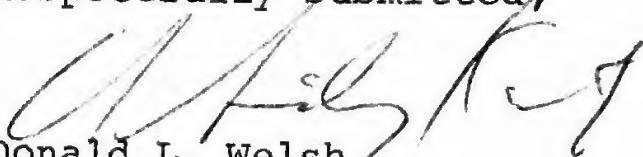
SUPPLEMENTAL MEMORANDUM OF PLAINTIFF IN OPPOSITION
TO DEFENDANT ROCKWELL INTERNATIONAL CORPORATION'S
MOTION TO DISMISS

This paper is a supplement to the "Memorandum of Plaintiff in Opposition to Defendant Rockwell International Corporation's Motion to Dismiss" filed in the above-captioned case on December 19, 1980. In Plaintiff's original memorandum on pages 12 and 13 it was asserted that the patent in suit was directed to a solid-state pinball machine having a certain type of control and display circuit, but a copy of the patent in suit, U.S. Patent No. 4,198,051, issued April 15, 1980, was not of record in this case. Therefore, plaintiff submits herewith a copy of the patent in suit.

It is pointed out that the claims, which define the invention covered by the patent, are contained on the last two pages of the patent in columns 69 through 72. An examination

of the claims unquestionably shows that the patent is directed to solid-state pinball machines having certain type of control and display circuits, and it is the control and display circuits which Rockwell makes and sells to Gottlieb for use in the pinball machines which are the subject of this lawsuit.

Respectfully submitted,



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December 30, 1980

United States Patent [19]

Bracha et al.

[11]

4,198,051

[45]

Apr. 15, 1980

[54] COMPUTERIZED PIN BALL MACHINE

[75] Inventors: Marion F. Bracha, Chicago; William H. Englehardt, Skokie, both of Ill.

[73] Assignee: Bally Manufacturing Corporation, Chicago, Ill.

[21] Appl. No.: 633,470

[22] Filed: Nov. 19, 1975

[51] Int. Cl. 2 A63F 7/00

[52] U.S. Cl. 273/121 A

[58] Field of Search 273/1 E, 85 R, 54 C, 273/118 A, 119 A, 121 A, 122 A, 125 A, 126 A, DIG. 28; 235/1 B, 92 GA, 156; 445/1; 340/172.5, 323, 337

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Primary Examiner—Vance Y. Hum

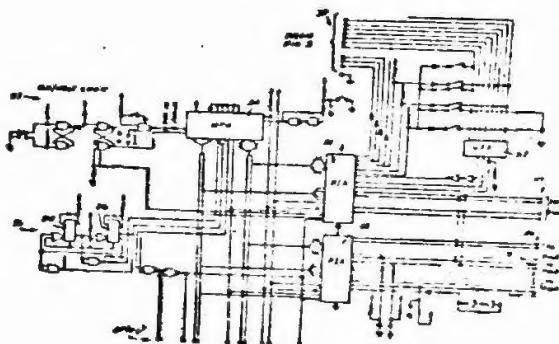
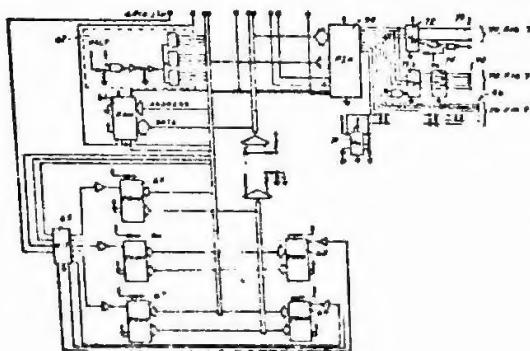
Attorney, Agent, or Firm—Fitch, Even & Tabin

[57]

ABSTRACT

A pin ball machine which incorporates a micro processor instead of relays and hard wiring wherein the processor is programmed such that when the coin switches, the flipper switches and the various scoring switches of the machine are energized the computer accumulates and drives indicators to indicate the score as well as drives the flippers, the sling shots and other units of the playfield to provide an improved machine.

22 Claims, 32 Drawing Figures



written in position 0. Only the specified bit is affected, all other bits in M(ADDR) are unchanged, inputs are bit (07), ADIDR (0-64K), and TEMP (0 or 1). This program is represented by blocks 215 through 223.

FIG. 13 illustrates a subroutine which writes the LMPMAT to the peripheral interface adapter 58. The output data is formed for use by 8 channel demultiplexer. This subroutine is represented by blocks 224 through 233.

FIG. 14 is a subroutine for NXTPLY and is represented by blocks 234 through 244.

FIG. 15 illustrates a subroutine used for checking the credit when a coin is deposited in the machine.

FIG. 16 is a subroutine used to monitor coins and give appropriate credit. 15

FIG. 17 illustrates a subroutine for interrupt which is initiated by a 120 cycle per second signal which reads the 5 bit byte by 8 bite input matrix and processes the input data using EDGEDET.

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FIG. 18 is a new game routine.

FIG. 19 illustrates a routine for collecting display of bonus.

FIG. 21 illustrates the routine which reads data from 7 by 8 input matrixes. 25

6
FIG. 22 illustrates the routine which identifies the active interrupt port and transfers control to an appropriate routine.

FIG. 23 illustrates the zero credit subroutine.

FIG. 24 illustrates the subroutine for scoring.

FIG. 25 is a subroutine for checking various values that have changed states.

FIG. 26 illustrates a routine for lighting bonus lights.

10 FIG. 27 is a bonus amount subroutine which is used to register the amount of bonus after a target is hit.

FIG. 28 is a subroutine for monitoring the target hits and scores accordingly.

FIG. 29 is a routine for monitoring the target hits. This routine scans each bit of the words jumping to a designated subroutine when a bit is set.

FIG. 30 illustrates a routine to determine free game threshold.

FIG. 31 is an alternative subroutine for monitoring coins and giving appropriate credit.

FIG. 32 is a routine to shift a specified bit to the carry flag position.

Although this invention has been described with respect to preferred embodiments, it is not to be so limited as changes and modifications may be made which are within the full intended scope as defined by the appended claims.

PROGRAM FOR MPU

OF INVENTION

00100		NAM	FOURTH
00110		OPT	DB16, MEM, SYMBOL
01001		* F R O N T	
01002		*RAM LABEL ASSIGNMENTS	
01005	005A	BEGSTK	EQU 90 LOAD ADDR. FOR BEGIN STACK.
01010	0048	RESRAM	EQU BEGSTK-18 STRT.RESV.RAM AREA
01015		*STARTING AREA	
01035		*PIA LABEL ASSINGMENTS	
01040	0034	PIA1DA	EQU \$84
01045	0035	PIA1CA	EQU PIA1DA+1
01050	0086	PIA1DB	EQU PIA1DA+2
01055	0087	PIA1CB	EQU PIA1DA+3
01060	0088	PIA2DA	EQU \$88
01065	0089	PIA2CA	EQU PIA2DA+1
01070	008A	PIA2DB	EQU PIA2DA+2
01075	008B	PIA2CB	EQU PIA2DA+3
01079	0090	PIA3DA	EQU \$90
01080	0091	PIA3CA	EQU PIA3DA+1
01081	0092	PIA3DB	EQU PIA3DA+2
01082	0093	PIA3CB	EQU PIA3DA+3
01033		*ROM LABEL ASSIGNMENTS	
01085	0800	BEGROM	EQU \$0800
01090		*LAMP SYMBOL ASSIGNMENTS	
01095	0000	DRLPA0	EQU \$00000000
01100	0080	DRLPA1	EQU \$10000000
01105	0001	DRLPB0	EQU \$00000001
01110	0081	DRLPB1	EQU \$10000001
01115	0002	DRLPC0	EQU \$00000010
01120	0082	DRLPC1	EQU \$10000010
01125	0003	DRLPD0	EQU \$00000011
01130	0083	DRLPD1	EQU \$10000011
01135	0004	RVLPA0	EQU \$00000100
			A TARGET OFF
			A TARGET ON
			B TARGET OFF
			B TARGET ON
			C TARGET OFF
			C TARGET ON
			D TARGET OFF
			D TARGET ON
			A ROLLOVER OFF